

REMARKS

Claims 1-3 are pending and are rejected.

Claims 1 and 2 are amended. A substitute specification is enclosed. In the following discussion, please refer to the substitute specification for all references to the specification.

Specification

As requested by the Examiner, applicants have enclosed a copy of a substitute specification without markings and one with markings for the Examiner's review and approval. Applicants have incorporated the preliminary amendment accompanying the original application into the substitute specification. Applicants submit that no new matter is added.

Claim Objection

Responsive to the objections to the claims, applicants have removed the reference characters "G1" from claim 1. Applicants have also amended claim 1 so that it clearly shows that the preamble is "An electron gun comprising:" as suggested by the Examiner. Applicants submit that the amendments to claim 1 overcome the objections.

Claim Rejection under 35 U.S.C. §112, second paragraph

The Office Action rejects claims 1-3 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

With respect to claim 1, the Office Action states that the term "the latter" lacks antecedent basis and it is not clear whether "the electrode" corresponds to "the control

electrode." Applicants have amended claim 1 by replacing "the latter" with "the cathode" and "the electrode" with "the control electrode."

With respect to claim 2, the Office Action states that the phrase "the cathode supports" lacks antecedent basis. Applicants have amended claim 2 by replacing "the cathode supports" with "the cathode support means" as recited in claim 1.

Applicants submit that the amendments to claims 1 and 2 overcome the rejection to claims 1-3 under 35 U.S.C. §112, second paragraph.

Claim Rejection under 35 U.S.C. §103(a)

Responsive to the rejection claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,861,708 ("Van Eck") in view of U.S. Patent No. 5,574,330 ("Matsuda"), applicants have amended claim 1 to more clearly and distinctively claim the subject matter that applicants regard as the invention. Applicants submit that amended claim 1 is patentable over the two references because neither reference teaches or suggests at least two metal components forming the lateral skirt overlap in such a way to tailor the length of the overlap to adjust the position of the two components one with respect to the other. Dependent claims 2-3 are patentable over the two references at least for the same reason.

Claim 1 as amended recites that the control electrode comprises at least three separate components: a substantially planar component drilled with apertures which are intended to face each cathode; and at least two metal components forming the lateral skirt. The ends of these two metal components overlap at least partially in such a way to tailor the length of the overlap to adjust position of the two components one with respect to the other, and the two components are shaped to one another at points of

the overlap. The support for this overlap feature of the two metal components can be found, for example, on page 5, line 15-page 6, line 2. By having these two metal components, it is possible to achieve tailored positioning of the planar component. See page 5, lines 23-26.

By contrast, Van Eck proposes a structure of a control electrode implemented using two folded portions 33A and 33B, but there is not overlap between the two folded portions. See, for example, FIGs. 3A-C. Matsuda, on the other hand, discloses that each electrode includes only one metal component. See, for example, electrode 1-1 in FIG. 3. Thus, neither reference discloses or suggests that the length of the overlap of two metal components forming the lateral skirt of the control electrode can be adjusted as recited in claim 1.

In light of the fact that both references, considered singly or in combination, do not teach or suggest the adjustable overlap feature recited in claim 1, applicants submit that claim 1 and the claims depended therefrom are patentably distinguishable from the cited prior art references.

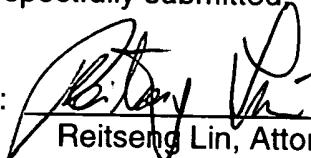
Conclusion

In view of all of the foregoing, it is respectfully submitted that the present application is in condition for allowance and such action is respectfully requested. If, however, the Examiner is of the opinion that such action cannot be taken, please contact the Applicants' attorney at the number and address below in order that any outstanding issues may be resolved without the necessity of issuing a further Action. An early and favorable response is earnestly solicited.

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No additional fee is believed due in regard to this amendment. However, if an additional fee is due, please charge any such fee to Deposit Account No. 07/0832.

Respectfully submitted

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in a postage paid envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on the date indicated below.

Date: 2-14-03 By: Karen Sculancy

"Version with Markings to Show Changes Made"

IN THE CLAIMS

Please amend the following claims.

- 1 1. (Amended) An electron gun comprising:
 - 2 at least one cathode for emitting an electron beam;[,]
 - 3 a dish-shaped control electrode [G1] comprising a substantially planar
 - 4 part provided with at least one aperture for the passage of the electron beam
 - 5 emanating from the cathode and a skirt at least partially surrounding the cathode;[,] and
 - 6 means for supporting the cathode so as to keep the cathode [latter] at a
 - 7 specified distance from the control electrode [G1], wherein the control electrode [G1]
 - 8 comprises at least three separate metal components[:]
 - 9 a substantially planar component drilled with apertures which are
 - 10 intended to face each cathode,
 - 11 at least two metal components forming the lateral skirt at least
 - 12 partially surrounding the cathode, the ends of the two components overlap at least
 - 13 partially in such a way to tailor the length of the overlap to adjust position of the two
 - 14 components one with respect to the other, the two components being shaped [and are
 - 15 secured] to one another at points of the overlap.
- 1 2. (Amended) The electron gun according to claim 1, wherein the cathode
- 2 support[s] means are secured to the lateral skirt.